Remarks

Claims 1-5, 7-18, 20-25 and 28-32 are pending in the application. Claims 6, 7, 19, 26 and 27 have been cancelled. Claims 33-35 have been added.

Rejection under 35 U.S.C. 103(a)

Claims 1-5, 7-18, 20-25, 28-32 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Glabe et al. (U.S. Patent No. 4,196,194) in view of Tock et al. (U.S. Patent No. 5,637,312) further in view of Glabe et al. (U.S. Patent No. 3,925,559). The rejection is respectfully traversed.

The outstanding Office Action asserts that the '194 reference discloses sodium diacetate and carbohydrates from many sources such as corn silage, whey, and hay. However, whey is a dehydrated natural product. Any dextrose present would not be available to the ruminal microbes, because the whey would have to be digested to break it down into its component parts and release the simple sugars.

The present invention gives nutrients to the ruminal microbes and has a buffer to prevent the ruminal pH from falling into an overly acidic environment which inhibits or kills the ruminal microbes. The combination works together to allow the microbes to flourish and have adequate numbers to process the complex plant structures referred to by the Examiner which are a normal part of a ruminant's diet. This allows a more efficient use of available foodstuffs for the ruminant.

In Glabe '194, nothing is taught about the availability of simple sugars for the ruminal microbes. Lactose in the whey has a distinct disadvantage under many ambient conditions for ruminants because it may lead to lactic acidosis, a condition of physiologic stress for ruminants. From a practical standpoint, Glabe '194 is unconcerned with sugars.

Tock et al '312 discusses many sources of carbohydrates but teaches nothing about the immediate availability of simple sugars as a nutrient source for ruminal microbes. Tock also does not teach about the combination of a buffer and a simple sugar in order to optimize a growth environment for ruminal microbes.

Each claim refers to a combination of sodium diacetate and a simple sugar. This combination increases a ruminant's feed intake and none of the references alone or in combination teaches that.

Conclusion

We have, then, Glabe '194 which teaches nothing about available simple sugars in a feed supplement, Glabe '559 which simply discusses sodium diacetate as flavoring, and Tock, which similarly fails to teach anything about a combination of sodium diacetate and a simple sugar. To one of ordinary skill in the art, there is nothing in any of these combined references that teaches using sodium diacetate and a simple sugar to increase a ruminant's feed intake.

In view of the foregoing, it is submitted that this application is in condition for allowance. Favorable consideration and prompt allowance of the application are respectfully requested.

We thank the Examiners for their time for an interview on January 14, 2005. We discussed and agreed upon monosaccharides and sodium diacetate as a combination to augment the ruminal environment to improve feeding and lactation in ruminants. We believe this combination is distinguishable over the prior art cited by the Examiner.

The Examiner is invited to telephone the undersigned if he believes it would be useful to advance prosecution.

Respectfully submitted,

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